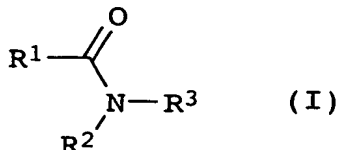


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We claim:

- 5 1. A process for the purification of carbonyl chlorides which have been prepared by reacting carboxylic acids with phosgene or thionyl chloride in the presence of a catalyst adduct, which comprises treating the carbonyl chlorides with a hydrohalide of carboxamides of the formula (I)



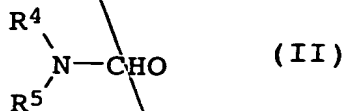
- 15 in which R¹ is hydrogen or a C₁- to C₃-alkyl; R² and R³ independently of one another are C₁- to C₄-alkyl, or R² and R³ together are a C₄- or C₅-alkylene chain, the mutual solubility of the carbonyl chlorides and the hydrohalides of the carboxamides (I) being low, and isolating the carbonyl chloride purified in this way by separation from the carboxamide hydrohalide phase.

- 20 2. A process as claimed in claim 1, wherein, for the treatment of the carbonyl chlorides, an amount of carboxamide hydrohalide of from 1 to 80% by weight, based on the amount of carbonyl chloride employed, is used.

- 25 3. A process as claimed in claims 1 to 2, wherein the carboxamide hydrohalide used is N,N-dimethylformamide hydrochloride.

- 30 4. A process as claimed in claims 1 to 3, wherein the treatment with the carboxamide hydrohalide is carried out at a temperature of from -15 to 80°C and a pressure of from 0.5 to 5.0 bar abs.

- 35 5. A process as claimed in claims 1 to 4, wherein, as catalyst precursor for the catalyst adduct to be formed, an N,N-disubstituted formamide of the formula (II) is used



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in which R⁴ and R⁵ independently of one another are C₁- to C₄-alkyl, or R⁴ and R⁵ together are a C₄- or C₅-alkylene chain.

5 6. A process as claimed in claims 1 to 5, wherein the catalyst precursor according to the formula (II) used is N,N-dimethylformamide.

10 7. A process as claimed in claims 3 to 6, wherein the N,N-dimethylformamide hydrochloride, after it has been used as treatment agent, is used as catalyst precursor in the carbonyl chloride synthesis.

15 8. A process as claimed in claims 1 to 7, wherein most of the carbonyl chlorides used originate from the reaction of carboxylic acids with phosgene in the presence of a catalyst adduct.

20 9. A process as claimed in claims 1 to 8, wherein the carbonyl chlorides to be purified are acetyl chloride, propionyl chloride, butyryl chloride, valeryl chloride, isovaleryl chloride, pivaloyl chloride, caproyl chloride, 2-ethylbutyryl chloride, enanthyl chloride, capryloyl chloride, 2-ethylhexanoyl chloride, pelargonoyl chloride, isononanoyl chloride, capryl chloride, neodecanoyl chloride, lauroyl chloride, myristoyl chloride, palmitoyl chloride, stearoyl chloride, oleoyl chloride, linoleoyl chloride, linolenoyl chloride, arachidoyl chloride and behenoyl chloride, and mixtures thereof.

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